

Transactions of The Chartered Surveyors' Institution

SESSION 1937-1938.

SECOND ORDINARY GENERAL MEETING OF THE
SESSION 1937-38.

*Held at the Chartered Surveyors' Institution, Monday,
6th December, 1937.*

Mr. ROBERT COBB (President) in the Chair.

NEW MEMBERS.

The following new members were received by the
PRESIDENT prior to the meeting and signed the Register:—

Professional Associates :

BAKER, STEPHEN CHARLES	HARRIS, REGINALD DUNLOP
BOWIE, NORMAN WALTER	CLIVE HERSCHEL
CAMPBELL, JAMES MACGREGOR	HYATT, JOHN RUSSELL
CLARK, REGINALD ERNEST	JENKINS, FRANK
DANIELL, PETER WILBERFORCE	JUBB, ERIC SPENCER
DELVES, HENRY CLAUDE	KEAT, HARRY JAMES
DUNBAR, JAMES GARRETT	LEE, WALTER JOHN
EMDEN, WILLIAM WALTER	MANSER, FREDERICK PERCY
EVANS, KENNETH D.	METSON, JAMES IAN
FISHER, LIONEL EWART	PARSONS, EDWARD JAMES
HARDCASTLE, MAURICE ALFRED	PURSEY, THOMAS HOLMES

SEWELL, WILLIAM FREDERICK
SKEELES, LESLIE ROWLAND
SMALL, ALAN HENDERSON
SMITH, NORMAN OSBORNE
STRACHAN, ALAN LESLIE
STROTHER, WATSON
STRUDWICK, CHRISTOPHER

THEOBALD, GEOFFREY
HINCHLIFF
TOPPING, CLIFFORD EDWARD
HART
TUCKER, JOHN NORMAN
UNDERWOOD, REGINALD ARTHUR
WILSON, ERIC HENRY
WINN, WALTER PERCIVAL

A DISCUSSION took place on Sir LYNDEN MACASSEY'S
paper entitled

PRACTICAL POINTS IN ARBITRATION.

Mr. T. PEIRSON FRANK (Member of Council) said he had very great pleasure in proposing a vote of thanks to Sir Lynden Macassey for his most interesting and able paper. He was sure that not only those present that evening but a very much larger body of members of the Institution would feel they were greatly indebted to Sir Lynden.

Some of the members would recollect taking a subject called "The Law of arbitration" in the Institution's examination, and he thought they would agree that they had been given that evening what might be termed "a refresher course" by one of the most eminent men who could give such a course. Sir Lynden had given a delightful account of how the law had been brought up to date, and personally he had learned a great deal from the paper.

Sir Lynden had presented an excellent paper to the Institution some years ago entitled "Surveyors and the law," and one might have expected that on the present occasion his paper would be entitled "Surveyors and the prophets"; in any case he thought the members would agree that they had derived profit from the paper they had just received.

Referring to the statement in the paper that "The arbitrator should give a reasonable time for an application to be made to the Court for leave of revocation" (page 29), he would like to ask what Sir Lynden considered a reasonable time; Sir Lynden had suggested three months in a somewhat similar case.

With regard to the statement: "It is probable that your appointment as arbitrator merely provides for your determining

" the differences which exist between the parties to the arbitration " without giving any indication as to what those differences are " (page 31), he supposed that, if the appointment did not indicate those differences, the arbitrator should ask for a written or an agreed statement. The parties might be willing to give such an agreed statement, and, if they did so, could the arbitrator properly refuse to allow a claimant to bring in other matters?

He thought one of the great assets of a paper such as that which Sir Lynden had presented that evening (as compared with some which could not be so reinforced) was the reinforcement which he gave to his statements by saying, for instance, " I myself " incline to the view," " I myself, however, would hesitate to " recommend," and so on.

He presumed it would be correct and in order to agree as to the number of expert witnesses, and he would like to ask whether the arbitrator had power to limit the number of expert witnesses.

Under the heading " Proceedings at the hearing " (page 39) reference was made to the rules of procedure and rules of evidence of the Courts, and it was stated that an arbitrator would be wise to adopt substantially the same procedure as the Courts. He would like to ask whether, if the arbitrator was confronted with a somewhat difficult and complicated proposition and there happened to be a dispute between two legal gentlemen, solicitors or counsel, the arbitrator could obtain legal advice as to how to settle the point.

Sir Lynden Macassey referred in his paper (page 43) to certain classes of assistance which lay arbitrators could obtain, and he would like to ask whether they could take legal advice on questions of law. For example, if they questioned the admissibility of evidence, could they take advice on that point, and had they full discretion as to referring to counsel and as to charging the cost involved?

With reference to the statement " The parties do not want " the door opened for litigation. What they do desire is a quick " and final determination of the differences " (page 46), he would like to know whether Sir Lynden Macassey could suggest any method whereby that quick and final determination could be obtained. Some of the members had been confronted with the difficulty of having certain differences quickly and finally settled ; he was referring particularly to disputes which might arise during the course of a lengthy contract. He did not know whether there was any procedure which might be a little quicker than ordinary arbitration. The new Act, which was referred to later in the paper, might give some powers with regard to that matter. The Courts were slow, but arbitration, as could be gathered from the paper, must take some little time ; there were many things which

must be done ; there was a certain procedure to be followed. In another institution, the Institution of Municipal and County Engineers, about fifteen years ago, a standard arbitration clause for contracts was prepared. That was done because a legal gentleman, the town clerk of a large city, desired to have the number of points upon which arbitration could take place reduced, and the council of that institution brought them down to four points, but he noticed that since about 1932-33 that standard form of contract had not appeared in the annual hand-book of the Institution of Municipal and County Engineers. That was done in order to reduce the number of matters in a contract which might be referred to arbitration. A step in the other direction recently occurred when changes were introduced in a form of contract used by the Road Department of the Ministry of Transport. Sir Charles Bressey—whom he saw present—might be conversant with it, though it might have been altered since he gave up the position of Chief Engineer to that department. Some two or three years ago a meeting had been held at which certain town clerks, county council clerks and other legal gentlemen met certain engineers and surveyors, and the Ministry had got a standard form of contract that provided for more matters being referred to arbitration than was the intention in the standard clause to which he had referred or than was the prevailing practice in certain other contract forms.

He would like to enquire whether, when in these forms of contract in which engineers and surveyors were so interested a clause provided that the decision of the engineer or surveyor should be final, one should, in assessing the value of a particular claim, follow closely or fairly closely the procedure of an arbitration. He supposed one would be complying with requirements in obtaining the opinion of the other side and giving them an opportunity of submitting any documents in support of any claim that they might be putting forward.

Someone had asked him a little while ago why it was that Sir Lynden Macassey was so often engaged in arbitrations dealing with engineering and surveying matters. He replied that he did not know, unless it was that Sir Lynden had more than a smattering of engineering and surveying knowledge ; he believed that Sir Lynden had been trained in those subjects. It reminded him of a certain former professor at Cambridge who divided the world into two classes: one, those who attended his college, and the other, the remainder. After a very good meal he was wont sometimes to say with piety that the others were also God's children. Sir Lynden needed no meal or anything else to stimulate him to cordial relationships with the engineers and surveyors whom he met either in Committees of the House of

Lords or Commons, or when arbitrations were taking place. He was able to extract from them the information that he wanted, and he did it in such a manner that he still retained their friendship. For that reason, as well as for the reasons he had already mentioned, he had the greatest pleasure in proposing a hearty vote of thanks to Sir Lynden Macassey for his admirable paper.

Mr. A. W. MERRY (Member of Council), in seconding the vote of thanks, said he did not think a layman should attempt to criticise Sir Lynden Macassey's valuable paper but should only gratefully assimilate the various axioms contained therein and possibly ask for guidance on other points.

Turning to the paper, there were numerous valuable points in it which he thought in some cases were not recognised by laymen. Sir Lynden mentioned (page 31) the desirability of agreeing the arbitrator's fee. He wondered in how many cases that was done, especially in arbitrations with which he was more conversant—those under the Agricultural Holdings Act.

Sir Lynden also emphasised the importance of an arbitrator knowing beforehand the exact questions on which he had to adjudicate. He considered that sound advice which should always be followed.

With regard to the production of documents, Sir Lynden stated that the power of the arbitrator to call for documents was not absolutely settled until the Act of 1934, but he was afraid the rule in that Act did not apply to agricultural arbitrations, and, although Rule 8 of the Rules as to Arbitrations in that Act stated that the arbitrator might call for documents, he was not certain whether he could insist on their production.

As to the employment of a shorthand writer (page 36), he was very grateful to Sir Lynden Macassey for putting so clearly the powers which existed in that respect. He himself had often thought that if everything could be taken down by a shorthand writer it would save a great deal of tedium and it would not be necessary to fill so many foolscap pages with the evidence.

With regard to agreed figures being put in (page 37), he was sure that if that procedure was followed there would be a great saving of time.

Referring to the statements in the paper under the heading "Proceedings at the hearing," he would like to ask whether, in the case of an agricultural arbitration in which an expert was arbitrator, when the case turned to a great extent upon the custom of the country, such expert was not entitled to say, from his own expert knowledge, that such and such was the custom prevailing in the district where the farm in question was situated.

In one case he remembered the arbitrator did so give his decision, and, on proceedings being taken in the county court on the ground that he had exceeded his powers, because no evidence had been given at the hearing bearing out his decision, the judge upheld the arbitrator, and as the other side did not take the case to the Court of Appeal he supposed that they were satisfied.

With regard to the arbitrator having power to refuse to hear irrelevant evidence, he supposed it should be borne in mind that care must be taken as to what evidence was refused. He would be glad if Sir Lynden Macassey would give his opinion on the following case as to the admissibility of evidence. An arbitration had been held on a farm between the sitting tenant and the landlord to settle certain points in dispute, and the arbitrator published his award. Within a very short time that sitting tenant became the outgoing tenant, and there was another arbitration between that outgoing tenant and the landlord. The outgoing tenant's advisers called as a witness the arbitrator in the first arbitration, and he gave evidence as to what had been in his mind in giving his award and the reasons why he gave it. Personally he had expostulated at such evidence being given, but he had been overruled. It did not affect the result, so he did not carry the matter any further, but it appeared to him that such evidence was clearly inadmissible.

As he read the statement in the paper (page 44), should there be any question of law involved the arbitrator could not take the opinion of a solicitor or counsel without the consent of the parties and he must also communicate that opinion to them. When the arbitrator was requested by either party to state a case, he took it that it was the province of the arbitrator to determine whether any point of law did really arise. He also understood from the paper that, when the arbitrator submitted a case on a point of law for the direction of the Court, if the parties did not agree on the facts the arbitrator stated his own findings of fact and they could not be questioned by either party in any subsequent proceedings.

With reference to the last paragraph on page 46, could an arbitrator be called upon to publish his award in the form of a special case after the case had been closed?

Mr. A. W. DAVSON (Fellow) said he was very glad that Sir Lynden Macassey had laid stress on the importance of having the issues to be determined stated clearly in black and white, and also the importance of having agreement as to figures. It was often very difficult to get that clear statement and that agreement.

With regard to the question of delivering full particulars and

what such particulars should be (page 32), he thought a lay arbitrator often found it very difficult to know how far he could go and what he should ask for in the way of particulars. It seemed to him that the case of *Phillips v. Phillips* definitely settled the matter, and was a very great help to the arbitrator in that respect.

The large cases, of course, constituted the greater proportion, but in the small cases also one often felt even early in the case that one of the parties was most unlikely to be able to pay the costs if he failed. Sir Lynden Macassey said the arbitrator had not *yet* direct power to deal with costs, and one rather wondered whether Sir Lynden felt and perhaps hoped that the time would come when the arbitrator would have such power.

Taking the paper as a whole, continuous reference to the Act of 1934, which arose throughout the paper, seemed to show that that had cleared up a large percentage of the difficulties which used to arise on procedure.

In conclusion he would like to express a feeling of slight disappointment. In the last paragraph of the paper Sir Lynden said: "It contains sufficient practical guidance to enable a surveyor, entering on the conduct of an arbitration for the first time, without experience of arbitration practice, to discharge his duty with competence and efficiency." When asked to take part in a discussion he often read the last paragraph of a paper first, and he thought, knowing the weaknesses of at least one lay arbitrator, that even Sir Lynden was making a very big claim, and therefore that there would be a large number of questions that he would put. He was afraid, however, that Sir Lynden had made his case, and that there was nothing to ask, because all the information was given in the paper. He would very much like, therefore, to support the vote of thanks.

Mr. W. T. CRESWELL, K.C. (Associate), said there was one point which Sir Lynden had made which personally he would like to emphasise, and that was the necessity for the appointment to be in writing. He would go a little further than that and would say that there was no appointment until there had been an acceptance of the invitation to act.

The majority of arbitrations in his experience arose out of arbitration clauses in contract, and those were often very loosely framed. He had come across a contract recently in which there was an arbitration clause, but one party to the contract maintained on a dispute arising that there was no such thing as arbitration provided for. As a last resource he advised the issue of a writ, well knowing that that was not the proper thing to do, because the proper tribunal was arbitration. It was, however,

the only way which he could see of bringing the matter to a head, because obviously the recalcitrant party would have to put in a defence, and would have to defend the case on the writ or go to the court under Section 4 of the Act of 1889 and ask for a stay of proceedings, on the ground that the contract provided for arbitration—the very thing which was desired. No writ was issued.

His view was that an arbitrator was at all times entitled to employ legal aid if in difficulties and should do so and charge the cost in the expenses. He would like that to be known, because before the 1934 Act it was frequently impossible to induce an arbitrator to agree to state a case, the position was not much better under the Act of 1934. Section 9 of that Act said in effect only that the arbitrator may state a case. It was a pity that it did not say "must," for the Court knew how to deal with frivolous cases which came before them, they would mulct the person bringing a frivolous case in costs. A party would not ask for a case to be stated unless there was really some reason for it. It had been established by case law that it must be clearly understood by lay arbitrators that the Court considered it misconduct if an arbitrator refused to state a case, and that it would hold such refusal shut out the party requiring a case to be stated from his statutory rights.

Mr. ARNOLD KEEN (Chartered Surveyor), after associating himself with the vote of thanks to Sir Lynden Macassey, said that there were one or two points in the paper which he would like to emphasise and something which he would like to add. The first point was with regard to the question of costs. He thought it was wise wherever possible to get the arbitrator's costs agreed before starting. He did not believe that that was very often done, and he remembered a case concerned with the valuation of fixtures and fittings where the surveyors could not agree. The case went to arbitration, and the arbitrator, in fixing his fee, charged a percentage on the amount of the award, with the result that the party that lost thought that the arbitrator could not have been fair, because naturally the higher the award the higher would be his fee. It was explained to him that that was not so, but that suspicion would have been avoided had the fee or the basis of payment been agreed beforehand.

The next point was the statement that where one party appeared at the hearing personally the other party ought not to be allowed to appear by solicitor or counsel unless he had previously declared his intention to do so. Personally he had not been aware of that, and he thought that it was an extremely

important point, particularly since Sir Lynden suggested that the award might be set aside if the arbitrator proceeded. He did not for a moment question that authority, but he thought it would be very helpful if Sir Lynden would say a little more about the facts on which that statement was based.

On the question of the swearing of witnesses, he thought that witnesses should always be sworn. The difficulty was that if one did not swear the first one it was not possible to swear the others, and by the time one had heard half a dozen witnesses one might discover that somebody was committing perjury, and then it was too late to swear him.

With regard to the stamping of documents, he had never discovered how a judge or anyone in Court could know, without a great deal of enquiry, whether a document was properly stamped, and he did not know how a lay arbitrator could be expected to know whether, for example, a lease entered into sixty years ago was or was not properly stamped at that time. He would be interested if Sir Lynden could suggest an easy and quick method of discovering whether the documents were properly stamped, and also whether, if it were discovered after the award had been published that a document was improperly stamped, the award could be set aside.

Sir Lynden had rightly said that " Arbitrators are supposed to " decide cases as a result of their own judgment on the evidence " before them." That being so, it must always be remembered that even if an arbitrator thought the evidence on both sides was wrong, he could not go outside that evidence. If it were a question of valuation, one side might say £4,000 and the other £5,000 ; the arbitrator might think it should be £2,000, but he would be bound to award the lowest figure given in evidence.

With regard to the award, Sir Lynden said " He is an imprudent arbitrator who gives his reasons." He had jotted in the margin of the paper Lord Fisher's famous remark " Never deny, never explain, never apologise " ; and in the case of an arbitrator he thought that was good advice.

Mr. H. W. LANGDON (Member of Council) said it was curious that on three occasions when he had had a certain learned counsel before him on one side, the case had not proceeded for more than a quarter of an hour, and he would perhaps be encouraging the man on the other side, who might be a little slow, to state his case, when the said counsel would jump up and say " Mr. Arbitrator, I am going to tell you at once that if you are against me " I shall ask you to state a case." He asked Sir Lynden's opinion on that type of interruption.

It had been said more than once that evening that it was necessary to see that the agreement to go to arbitration was in writing and that the consent to arbitrate was likewise in writing. Such preliminary arrangements, when a man was appointed by the President as an arbitrator, could be safely left to the Institution, whose staff would see that they were in order—that being one indication of the great amount done by the Institution for its members.

He joined very heartily with the previous speakers in thanking Sir Lynden for a paper which was of very great interest and help to every member of the Institution.

Mr. OSWALD HEALING (Vice-President) said that all the members were much indebted to Sir Lynden for the valuable practical hints contained in the paper, which would make it a text-book for all surveyors who were called upon to act as arbitrators. It would be indiscreet for a surveyor to underline the recommendations of Sir Lynden with his great experience of arbitrations and of the legal aspect of the functions of an arbitrator, but he would like respectfully to emphasise the necessity for pleadings to be specific. He had experienced some difficulty, arising out of the indeterminate character of the pleadings as indicating the issues to be tried, and it was essential that those pleadings should be definite and should completely cover the ground. He took it from the recommendations in the paper that Sir Lynden would advise an arbitrator to disregard anything which was not specifically referred to in the pleadings on the two sides.

Mr. Peirson Frank had raised a very interesting point. Surveyors were often called upon to give advice on the drafting of building and engineering contracts, including the arbitration clause. In that clause it was sometimes the custom to exclude specific items from the authority of the arbitrator, and it was essential that a surveyor advising either a public body or a private client should make quite sure that, while the authority of the engineer or the architect was not interfered with, yet that authority should be confined to those parts of the contract with which he was especially qualified to deal. It was quite improper for matters of value arising out of the construction of the contract to be left entirely to the decision of the architect or engineer conducting the works. The drafting of such a clause, therefore, became of particular importance, and he would ask surveyors to be quite clear that such a clause, when it came before them, contained only those exceptions from the operation of the arbitration clause which were proper and fitting in such contracts.

The vote of thanks was accorded by acclamation.

Sir LYNDEN MACASSEY expressed his gratitude for the kindness of the members in according him a vote of thanks, and said it had been a great pleasure to him to read the paper; he would regard himself as amply rewarded if it was really of any assistance to the members of the Institution, of which he was very proud of being an Associate.

Mr. Peirson Frank had referred with somewhat mixed feelings to his having cross-examined him, but Mr. Frank had certainly taken courage, for he had addressed to him (Sir Lynden) the most complete cross-examination to which he had been subjected for a long time.

A number of important questions had been raised, and it would take some time to reply to them. He understood, however, that he had permission to reply in writing in the *Journal* and he would follow that course. He would like to say that Mr. Keen had rather extended the scope of the paper, which was not concerned at all with questions which might arise in regard to the important matters of the choice of an arbitrator. Nor was it considering a number of the interesting questions such as those which Mr. Creswell raised. The scheme of the paper was those to deal with what the arbitrator himself ought to do. In answering the questions, therefore, he did not think he ought to be led outside the very narrow scope of the paper, which was merely concerned with matters with which the arbitrator must deal with and giving him guidance which would enable him to deal with those matters in an effective way and according to law.

Sir LYNDEN MACASSEY subsequently sent the following answers to the questions put to him in the course of the discussion:—

MR. T. PEIRSON FRANK.

1. *"As to what was a reasonable time for an arbitrator to allow a party who did not wish to go on with an arbitration to make an application to the Court for leave to revoke a submission."*

What would be a reasonable time depends entirely on the circumstances of each case; for example, if the question of a party desiring to apply to the Court for leave of revocation arose just before a legal vacation, it might not be reasonable under ordinary circumstances for the time to be fixed which compelled a party to apply to the Court during the vacation. On the other hand,

the questions at issue in the arbitration might be such as to require urgently an early determination. In such an event it might be necessary to compel a party to apply to the Court for leave to revoke during a legal vacation. Each case has got to be considered on its own merits, and no precise period of time could be stated to be a reasonable time in general.

2. *"Whether, if the submission or appointment as arbitrator does not state precisely the differences which are to be determined in the arbitration, the arbitrator should ask for a written or an agreed statement."*

The arbitrator should always ask for a statement of the precise differences which he has to determine. If it is possible to get a statement of differences agreed to by both parties, then nothing better is wanted. On the other hand, if it proves impossible for the parties to agree a precise statement of differences, then, in a case of any importance the arbitrator ought to order the claimant to deliver to the respondent points of claim with full particulars, and the respondent to deliver to the claimant, with full particulars, his defence. Once an agreed statement has been delivered, or points of claim and defence have been delivered, the arbitrator ought not to allow a claimant to bring in to the arbitration any item of claim not included in the agreed statement, or the points of claim. His permission to amend pleadings ought to be confined to matters connected with the claims already set out in the agreed statement, or the points of claim.

3. *"Whether an arbitrator had power to limit the number of expert witnesses."*

Expert witnesses give opinions, they do not ordinarily speak to questions of fact. While, therefore an arbitrator should be cautious of limiting witnesses who speak to questions of fact, there is no reason why he should hesitate to limit the number of expert witnesses who merely give their opinion. It has been the habit of distinguished judges to lay down the rule that except in special circumstances they will only admit the evidence of two expert witnesses. In all ordinary cases this is a very good rule for an arbitrator to follow. It has the sanction of high judicial authority.

4. *"Whether an arbitrator can seek legal advice in the event of a dispute before him as to the admissibility of any particular piece of evidence."*

It is well settled that an arbitrator can take legal advice, e.g.,

as to whether any particular piece of evidence is admissible or not as well as in regard to other matters. He has to remember, however, that his right is only to take advice, and he must exercise his own discretion as to whether he will follow it or not. He has no right to delegate to a third party the determination of any question which it is his duty as arbitrator to determine. If the piece of evidence about whose admissibility a controversy has arisen goes to the root of any question or questions which the arbitrator has to determine, he would be wise to offer to state for the decision of the Court a case during the proceedings of the arbitration as to whether such evidence was or was not admissible, and so put upon the party raising an objection to the admissibility of the evidence the responsibility of deciding to go to the Court or of taking the arbitrator's decision.

5. *"As to whether any method can be devised for the quick and final determination of differences which arise during the course of a lengthy contract."*

There is no more expeditious procedure than arbitration can be made. The question whether differences which arise during the carrying out of the contract can be heard and determined by arbitration, during the progress of the contract, or whether they must stand over until the contract has been completed, depends entirely upon the provisions in the contract. Sometimes one sees it provided in one way, and sometimes in the other way.

6. *"As to the number of points upon which disputes under a contract can be referred to arbitration."*

This again entirely depends upon the provisions of the contract. The best practice under building and engineering contracts nowadays is to reserve disputes as to a few selected matters to the final decision of the architect or the engineer, leaving all other disputes capable of being referred to arbitration. The matters in respect of which the architect's or engineer's decision is to be final and not referable to arbitration are such matters as quality of workmanship, quality of materials, taking out all defective work and things of that kind. They are obviously questions on which the decision of the architect or engineer should be final. But the contract ought not to prevent the contractor making a claim for additional payment in respect of any final decision given by an architect or engineer which the contractor considers was not given in accordance with the provisions or intention of the contract.

7. *"As to whether an engineer or surveyor, in considering a matter on which his decision is provided by the contract to be final, should follow closely, or fairly closely, the procedure which would be adopted by an arbitrator in an arbitration."*

There is no such obligation upon an engineer or surveyor in such a case, but of course in important matters he would be well advised to do. The fact that he did proceed in that judicial way would create confidence in the minds of contractors that their claim would be fairly considered and probably result in such a case in contractors pricing out items of work at a lower figure than in the case of an engineer or surveyor who is known to or who is thought to deny contractors the privilege of a fair hearing.

Mr. A. W. MERRY.

1. *"As to the power of an arbitrator to order the production of documents in agricultural arbitrations."*

The Agricultural Holdings Act, 1923, by Section 16 (5) provides that the Arbitration Act, 1889, shall not apply to any arbitration under the Act of 1923. Section 16 (1) of the Act of 1923 provides that arbitration under that Act shall be by a single arbitrator acting in accordance with the provisions set out in the Second Schedule to that Act. Rule 8 of the Second Schedule empowers the arbitrator to order the parties to the arbitration, and all persons claiming through them respectively, subject to any legal proceedings, to produce before him all samples, books, deeds, papers, accounts, writings and documents within their possession or power, which may be required or called for. The arbitrator can therefore order a party to an agricultural arbitration to produce documents before him. If the party refuses to obey the order of the arbitrator, the arbitrator has no power to compel him. All he can do is to refuse to allow a party to put in evidence a document which he has refused to produce, and of course he can afterwards mulct such a party in costs. As the Arbitration Act, 1889, does not apply to an agricultural arbitration, and the Arbitration Act, 1934, is an Act construed as one with the Act of 1889, it is very doubtful whether the Court would consider that they had power under Section 8 of the Arbitration Act, 1934, to make an order against a party to produce documents which he had refused to produce in response to an order of an arbitrator acting under the Act of 1923.

2. *"As to whether, in the case of an agricultural arbitration where the case turned largely upon the custom prevailing in the district, an arbitrator who was an expert in regard to such custom could determine matters arising out of such custom on his own expert knowledge."*

The question turns upon whether the arbitrator was appointed to decide such a matter upon his own knowledge as an expert. If he was so appointed, then he can decide the matter according to his own knowledge and experience. On the other hand, if he was not appointed to decide the matter as an expert having such knowledge of a particular custom, he must decide according to the evidence, but of course the weight he will attach to the evidence will be largely governed by his own knowledge and experience.

3. *"As regards the case mentioned, where the outgoing tenant's advisers called as a witness in an arbitration the person who had been arbitrator in a previous arbitration, and that person gave evidence as to what had been in his mind in giving his award and the reasons why he gave it."*

The evidence of the previous arbitrator was quite clearly inadmissible and ought not to have been given. The award spoke for itself, and no one had any right to call the arbitrator who made the award to state what had been in his mind when he made it. It was altogether improper.

4. *"As to stating a case on a point of law for the decision of the Court."*

The proper practice for an arbitrator to adopt is to endeavour to get parties to agree as to the question of law to be stated. If he cannot get them so to agree, then he should submit the question of law as stated by the claimant, and the question of law as submitted by the respondent. He should also ask both the claimant and the respondent for the questions of fact on which they want him to give a finding for the assistance of the Court. In the case he states he should set out the questions of fact submitted to him by both sides and give his findings upon them. If there are any other questions of fact on which he thinks he ought to give a finding for the assistance of the Court, then he ought himself, on his own motion, to insert those findings in the case. All findings of fact by an arbitrator, if there was any evidence before the arbitrator to support them, are final and

binding on the parties to the arbitration and also on the Court to which the questions of law are submitted for decision.

5. *"As to whether an arbitrator can be called upon to publish his award in the form of a special case after the hearing before him has been closed."*

If after the hearing before the arbitrator has concluded, and one or other party asks him to state his award in the form of a special case, the course he ought to adopt is as follows:—If he thinks there are grounds for his stating his award in the form of a special case, he should communicate with the other party the fact that one party has asked him so to state his award, and he should summon both parties before him to discuss the matter, when he can arrive at a decision. On the other hand, if he thinks there are no grounds to justify his stating his award in the form of a special case, he should so inform the party that has applied to him to do so, and state that he will postpone the making of his award until that party has had time to apply to the Court for an order on him to state his award in the form of a special case under Section 9 of the Arbitration Act, 1934.

Mr. ARNOLD KEEN.

1. *"As to the course to be adopted by an arbitrator if one side appeared before him by counsel and the other did not."*

There is no direct authority as to what course an arbitrator should follow if one side appears before him by counsel without having communicated his intention so to appear to the other side. The right course, however, is for the arbitrator to give the party who is not appearing by counsel an opportunity of so appearing if he desires and, if need be, to adjourn the arbitration to enable that party to retain counsel.

2. *"As to the stamping of documents."*

It is quite likely that the arbitrator may not know what is the proper amount of the stamp for a document, but before admitting an unstamped document in evidence he should obtain an undertaking from the party tendering it to pay the amount of the stamp duty and penalty whatever it may be. The arbitrator can ascertain this amount and then call upon the party to make good his undertaking.

Mr. OSWALD HEALING.

"As to whether an arbitrator should disregard anything which was not specifically referred to in the pleadings."

An arbitrator should not allow a new claim to be introduced into the arbitration which was not raised in the pleadings, but in respect of such claims as have been raised, an arbitrator has power to allow an amendment of the pleadings in such cases as he thinks right so to do, subject to the ordinary rules which obtain in the Courts as to amendment of pleadings.

PAPER NO. 580.

BRITISH FORESTRY.

By Sir Roy Robinson, O.B.E.

(Chairman of the Forestry Commission).

Paper to be discussed at an Ordinary General Meeting of the Chartered Surveyors' Institution on Monday, 10th January, 1938.

SUMMARY.

The paper is in four sections:—

I.—*The Historical Rôle of the Woodlands.*

Reviews the part which the woodlands have played in the history of the country, the devastation due to wars and the spasmodic efforts made to rehabilitate them.

The management of the woods failed to keep step during the nineteenth century with the increasing and changing timber requirements of the country.

The increasing importance of pulp of wood and other changes in the utilisation of wood are referred to.

II.—*The Present Position of the Woodlands.*

The unsatisfactory condition is noted ; a summary of the results of the Census of Woodlands, 1924, is given and the Forestry Commissioners' assessment of the position in 1934 stated ; the effect of the War fellings was intensified because the woodlands in 1914 were already in an unsatisfactory state.

III.—*Action taken since the War.*

The twofold basis of forest policy—maintenance of the existing woodlands and afforestation—is stated and the

work of the Forestry Commissioners and of private owners reviewed broadly. The disappointing results in private woodlands are noted and the reasons briefly discussed.

IV.—The Future of Forestry.

The future uses of the woodlands are stated and the objective of forest policy discussed ; the factors favourable and unfavourable to the home production of timber are outlined and the probable financial results stated ; by bringing 2 million acres of existing woodlands into full production and afforesting 2 to 3 million acres of uncultivated land the home production could be raised by a great effort to between 20 per cent. and 30 per cent. of current consumption, safeguarding also the total consumption in an emergency of three years. The nature of the effort required to achieve that is stated.

The problem of encouraging private forestry is restated. Reference is made to the relation of woodlands to sport and to amenity, and also to National Forest Parks.

In this paper it is proposed not to present a descriptive account of British Forestry, but to examine the existing position and the events which have led up to it, and then to consider the possibilities of the future. Timber production is the main consideration which is kept in view, but sport and amenity are not overlooked.

I.—THE HISTORIC RÔLE OF THE WOODLANDS.

From the earliest times the home woodlands have played in the defence and economics of the country an intimate and important part which is apt to be overlooked. Up to the middle of the nineteenth century the supply of timber for ship-building was a constant source of anxiety. Most of the old Acts dealing with the management of the Crown forests have a preamble to the effect that the forests were nurseries for naval timber. The earliest industrialisation—

the iron industry—was based on smelting with charcoal, for the manufacture of which great quantities of wood were used.

In the days when Britain was mainly rural the woods supplied the timber for house-building, small wood was in demand for numerous purposes, oak bark was used almost exclusively for tanning leather, and generally the woods were an essential part of national economy.

A progressive change came over the scene with the industrialisation of the country. Vast quantities of cheap wood and timber were wanted and the home woods could supply neither the kinds (the softwoods) nor the quantities required. So a great import trade in unmanufactured timber was gradually built up. In round figures the quantities increased from 2,000,000 loads in 1850 to 6,000,000 loads in 1875, 9 million loads in 1900 and to 10 million loads in 1925, at which figure, more or less, imports now tend to run.

For her supplies Britain has been fortunate in two respects: the existence overseas of vast primæval forests, especially in the New World, and the fact that cheap water transport was available in most cases direct from the overseas forests to her ports.

No systematic effort was made during the nineteenth century to re-orientate the management of the home woods towards the changing demands, so that even to-day we have large areas of coppice and coppice-with-standards which, while remunerative enough in 1850, are now sadly unproductive.

With the passing of wooden ships during the nineteenth century the interest of the State in home timber production diminished almost to vanishing point. There was a certain amount of tinkering in the small area of effective forest—some 60,000 acres—left to the Crown but that was all until almost the end of the century, when State concern began slowly to revive.

In private woodlands, though there was little systematic forestry in the modern sense, a good deal of planting was

done. It would appear that the rate of planting during the 40 years 1844 to 1884 averaged about 16,000 acres per annum, and from 1884 onwards about 12,000 acres. Much of this planting was done with softwoods, such as pine and larch. It is fortunate that this was so because in the Great War, when we were thrown back quite unexpectedly on our native resources, a considerable supply was forthcoming, and shipping, which would otherwise have been required for timber, was freed for the transport of food and munitions.

All wars are destructive of wealth, including timber, and it is interesting to note how in the case of woodlands history has repeated itself with modifications. The Civil Wars brought great devastation, and afterwards, under the influence of Evelyn, the diarist and author of *Sylva*, there was a considerable replanting, in which the State took a very small part. Towards the end of and after the Napoleonic War there was an even greater outburst of activity in which the State took a greater part. To-day, after the Great War, the Forestry Commission is planting hard, and the burden has moved more definitely than ever to the State.

If history teaches anything, it is that the reserves of timber which we are now building up will be fully appreciated by posterity.

It has already been pointed out in this cursory account how, with industrialisation, softwood timbers came to be required in very large quantities. Note must be taken of a change which began about sixty years ago in the utilisation of softwoods themselves, namely, by the manufacture of wood pulp. In 1887 we imported nearly 80,000 tons ; in 1897, 388,000 tons ; in 1912, 925,000 tons, and in 1936, 2,400,000 tons. Much wood pulp in addition was included in imports of paper.

Not only has an important industry emerged, but the manufacture of pulp wood marked the beginning of an epoch in the utilisation of wood, the recognition of the fact that wood as a raw material was capable of more refined

and economical uses. On the one hand the chemist has proceeded to manufacture the cellulose of wood into viscose and even sugar, and on the other the engineer has begun to break down the solid wood and rebuild it in new forms. We are quite obviously only at the beginning of these revolutionary changes. How far and in what directions they will go no one can safely predict, but it seems certain that wood will continue to be an essential raw material. Probably, also, the woods of the simplest structure, such as the spruces afford, will be in most demand.

II.—THE PRESENT POSITION OF THE WOODLANDS.

It is universally agreed that, taken as a whole, the woodlands of the country are in an unsatisfactory condition. The most recent documentary evidence is contained in the Report on the Census of Woodlands* of 1924, a summary of which is given below.

1. The total area of woodlands (including land recently carrying woods) was just short of 3,000,000 acres, or 5·3 per cent. of the land area of Great Britain.

2. The woodlands were constituted as follows:—

—	Acres.	Percentage of total woodland area.
High forest	1,416,890	47·9
Coppice and coppice-with-standards ...	528,680	17·9
Scrub, felled and devastated	808,810	27·3
Uneconomic, including amenity woods and shelter belts.	204,290	6·9
	2,958,670	100·0

3. The high forest (1,416,890 acres) is reasonably, but

* Report on Census of Woodlands and Census of Production of Home-grown Timber, 1924 (pp. 15-16).

by no means fully, productive. The best timber was felled during and immediately after the war.

The coppice and coppice-with-standards (528,680 acres) represents under modern conditions a poor form of silviculture.

Scrub (330,700 acres) and felled woodlands (478,110 acres), in all 808,810 acres, represent over a quarter of the nominal woodland area and are producing nothing.

There remain 204,290 acres of amenity woods and shelter belts, park timber, &c., which primarily serve some purpose other than timber production.

4. The economic or potentially productive woodlands are estimated to contain in all about 2,260 million cubic feet of timber and pitwood.

5. The area cut over during and immediately after the war is estimated at rather less than 450,000 acres and the volume of timber felled at approximately 1,000 million cubic feet. This is equivalent to roughly one-third of the total volume standing in 1914.

6. At the present time (1924), and in consequence of the war fellings, reserves of mature coniferous timber are very low and equivalent to not more than six months' consumption. The younger crops are on the same scale but are well distributed through the various age-classes.

The reserves of mature hardwoods (mainly oak), which were not drawn on to the same extent during the war, are considerable, although the average quality is not good. There is a great lack of young hardwood plantations. Oak planting in particular has gone out of fashion in favour of conifers. When the existing mature and semi-mature oak woods have disappeared, as they are steadily doing, the supply of home-grown oak will become negligible.

The above statements summarise the position in 1924. Since then there has been no systematic survey of the woods of the country, so that the present position cannot be stated with the same precision. An attempt was made in the

Forestry Commissioners' Annual Report for 1934* to assess it. The reader is referred to the Report for details, but the main conclusion was as follows:—

“ The Census of Woodlands made in 1924 showed that the total area of felled or devastated woodlands in Great Britain was 478,100 acres, most of which was a legacy of war and post-war fellings. . . . On the most favourable estimates not more than 80,000 acres of leeway have been made up, leaving still unplanted some 400,000 acres of felled and devastated woodlands.

In other words, it is more than doubtful whether any real progress has been made in maintaining the existing woodlands on even the relatively low pre-war standard.”

It is clearly desirable for the direction of forest policy that the facts should be more firmly established, and a new census, which will include estimates of the growing stocks, is about to be taken.

In considering the present state of the woodlands stress is naturally laid on the devastating effect of the war fellings, but it must also be borne in mind that the woods in 1914 were already in an unsatisfactory state. In actual fact 1,000 million cubic feet, which are estimated to have been felled, would represent only five to seven years' growth in 3 million acres of fully stocked high forest. But the woods were neither wholly high forest nor was the high forest fully stocked.

III.—ACTION TAKEN SINCE THE WAR.

I must now retrace my steps a little and describe the efforts which have been made in recent years to promote forestry.

The experiences of the war had left the country with a vivid impression of the importance of ensuring a supply of home-grown timber. The Forestry Commission was accordingly set up as the instrument of forest policy. The

* Fifteenth Annual Report of the Forestry Commissioners for the year ending 30th September, 1934 (H.C. 76).

two main elements of that policy were (1) to bring the existing woodland area—some 3,000,000 acres—back to a productive state and (2) to afforest $1\frac{3}{4}$ million acres with softwoods. It was estimated that if these two steps were taken, the country could be made practically self-subsisting for an emergency extending over three years.

As the bulk of the existing woodland was in private ownership the essence of the problem was to encourage private forestry. The second part—the large softwood programme—was left to State action, that is to the Forestry Commission itself.

The Commission, in spite of several set-backs arising out of crises in the national finances, has made considerable progress, though both as regards land acquisition and planting the programmes initially proposed are in arrears. The Commission has got together an estate of upwards of a million acres, of which some 620,000 acres will ultimately be forest and over 310,000 acres have been planted. The rate of planting which remained steady at about 20,000 acres for the period 1932-1937 is in course of expansion and should attain some 24,000 acres during the current season. Of that area about 21,000 acres will be planted with conifers and 3,000 acres with broad-leaved species.

An efficient staff has been built up, and through practical experience, systematic experiment and research our technical knowledge has been greatly increased.

So far as the rehabilitation of the existing woods is concerned the position is less satisfactory. In order to encourage the planting of areas felled in the war the Forestry Commissioners instituted in 1921-22 a system of planting grants. Some 115,000 acres have been planted with the aid of grants ; a few thousand acres of bare or unproductive woodland have been acquired and in part replanted by the Commissioners. The general result has already been summarised in the quotation from the Commissioners' 15th Annual Report and affords cold comfort after so many years of effort. But, apart from planting and replanting, it is doubtful whether the remainder of the private wood-

lands—that is, say, the bulk of the area—is in as good a condition, silviculturally, as it was in 1919. The habit of picking out and felling suitable trees has not ceased. Necessary thinnings, drainage, and so on, have been neglected.

The reasons for this failure to secure progress in the rehabilitation of the existing woodlands are, of course, manifold and complex, but as they are germane to my theme I must try to define the main ones.

There are first factors of an economic or quasi-economic kind. The post-war years have been a period of high taxation, including high death duties, and although woodlands have been placed in a very favourable position compared with other forms of property, they are just part of a landed estate and cannot be insulated from the effects of general taxation. Woods have been felled because the owners needed cash, and neglected for the same reason. Estates have been broken up and speculators have taken their toll of the timber. It is a continuing process which connotes uncertainty of tenure, and uncertainty is the worst foe of a long-term undertaking like forestry.

The second group of factors is mostly personal. Many woodland owners desire to place their woodlands in order but are deterred by considerations such as those to which I have just referred ; others are indifferent so long as the woods provide cover for game or are ornamental. Many believe that in any event forestry is a poor investment ; others have no sense of the responsibility which should go with land ownership and just do not care whether their woods contribute anything towards the well-being and safety of the nation.

It will be generally agreed that these reasons for lack of action are not only intractable but are also deep rooted.

IV.—THE FUTURE OF FORESTRY.

The woodlands of the future, like those of the present and the past, will have to serve three main purposes: to

provide wood and timber for the use and safety of the nation, to provide cover for game, and to add to the amenities of the countryside. There is nothing fundamentally incompatible between good silviculture on the one hand and sport and amenity on the other, but in my opinion there can be conflict between unbridled sport and dogmatic amenity on the one side and the safety and well-being of the country on the other.

The first question, therefore, in a discussion on British forest policy is how much timber should the nation set out to grow.

No one who knew the facts doubted at the end of the Great War that we needed to hold a substantial reserve of standing timber and the means (man power and equipment) of utilising it quickly in an emergency. Under the pressure of day-to-day affairs that lesson has gradually become dim in just the same way as similar lessons were forgotten in the eighteenth and nineteenth centuries. The development in recent years of nationalism and to the observant the recent rise in pit-prop prices, together with the causes underlying the rise, have all served as a timely reminder. We can assume with reasonable, if not with absolute certainty, that wood and timber will be required in immense quantities so long as our civilisation endures. The uses change ; old ones, like wooden ships, fall out, and new ones, like pulp and viscose, come in, but the volume of consumption does not diminish. The country cannot carry on in peace or war without great quantities of timber, and the country has no assurance that the supplies can be obtained without interruption from abroad.

I believe that the present policy is sound in attempting to build up a reserve of standing timber equivalent to three years' normal consumption. It may be objected that the assumption is too large, but it has to be remembered that it is necessary not only to have the standing timber but also to have the means of utilising it—that is to say, to have an efficient home timber industry which can be rapidly expanded in emergency. Further, it is going to take a long

time to reach such an objective, and we start well behind scratch.

There is the wider question whether we can rely indefinitely under normal conditions on getting from abroad all the timber and wood products which we require.

It is an undoubted fact that the world sources of supply diminish rapidly and continuously. That is outstandingly the case in all the "new" countries, such as North America and Australia, while our standing source of supply—North Europe—is not capable of increased production on a sustained basis. There is also the contingency that, should Asiatic civilisation develop on the lines of European civilisation, world consumption of timber will be immensely increased.

The next fifty years probably, and the next hundred, certainly, will see revolutionary changes in the timber world, and they are unlikely to be to the advantage of these islands. I have never been a prophet of a world "timber famine," but I feel that there may be at least some uncomfortable periods and some difficult adjustments.

Assuming, therefore, that it is necessary in the national interest to develop our own resources for timber production, what is the nature of the enterprise? I will begin by attempting to assess the technical aspects.

In the first place, the factors which underlie the home production of timber are relatively favourable. We can grow the actual species, or their equivalents, of at least 90 per cent. of our great imports of unmanufactured timber. The obvious exceptions are tropical hardwoods, such as teak and mahoganies, but the redwood and whitewood of Northern Europe are the products respectively of our Scots pine and Norway spruce. The Oregon pine of Western America is our identical Douglas fir. As regards hardwoods, our oak is as good as or better than American oak. Our ash, beech and sycamore are excellent timbers. I am not suggesting that our coniferous timbers will compete with the fine-ringed clear timber from trees of very great age, but I am on well-proven ground when I say that with

proper silvicultural methods the timbers we can grow can compete in all ordinary commercial grades.

So much for quality. As regards quantity production, I will content myself with the statement that the rates of growth are distinctly favourable for most of the common tree species, and unusually favourable for certain species such as Douglas fir, Sitka spruce and Japanese larch, which grow much quicker than any of the European species. I will not burden my paper with statistics of growth but will merely add that these general conclusions are based on quite comprehensive records compiled by the Research Branch of the Forestry Commission.

The next favourable factor is the enormous market for wood and timber. If this is the case, as it undeniably is, why are prices for home-grown timber so poor and so uncertain? That is a long story on which my first comment is that good timber (the product of good silviculture) always sells well. Then there is unorganised and weak selling, and no semblance of what in other walks of life is known as salesmanship. It is my personal experience that provided sufficient trouble is taken there are remunerative markets for much material generally dismissed as worthless.

If, as I have stated, we can grow good timber, grow it relatively quickly and grow it so to speak in the market place, we start under favourable conditions.

On the unfavourable side we must recognise the fact that the costs of production are bound to be high. We have to fence against stock, rabbits or deer as the case may be, and while there are rabbits natural regeneration cannot be practised. Artificial planting, heavy weeding in our moist climate, and high protection costs have all to be faced. Naturally the smaller the woodland the higher management, fencing and similar costs tend to run, and to a great extent England is a country of small woodlands. Heavy transport cost is a factor which has weighed against good prices for standing timber.

It would require a great deal of space to discuss the purely financial aspect of an enterprise conducted under the

conditions stated above. The calculations based on the Forestry Commissioners' experience have been made and the results placed before the Estimates Committee of the House of Commons.* The general conclusion was summarised as follows:—

“ If all the relevant expenditure be charged, the probable yield on afforestation with conifers, which constitute some 90 per cent. of the total plantings, will be between 3 per cent. and $3\frac{1}{2}$ per cent. The yield on deciduous trees is lower.”

I come now to the area of land which might be made available for timber production, comprising first the existing woodlands and secondly uncultivated land.

Of the nominal area of woodland, approximately 3 million acres (as shown in the table on page 72), 2 million acres at least, and possibly $2\frac{1}{2}$ million acres, could be devoted to timber production as the main objective. There would still remain reasonable areas for such forms of sport and such forms of amenity as were considered incompatible with economic timber production. Such an area, if managed on sound silvicultural lines, would produce annually from 100 to 125 million cubic feet, a fair proportion of which would be hardwoods.

Then I think that we could utilise for afforestation from 2 to 3 million acres of waste or poorly utilised land without appreciably disturbing the existing economics of the countryside, but, on the contrary, with considerable improvement in rural employment and prosperity. Ten years ago I would not have placed the figure so high, but the sustained experimental work which the Forestry Commissioners have been doing over the last eighteen years, coupled with the great soil improvement which can be effected by ploughing with caterpillars and heavy ploughs, has altered the whole aspect of affairs. I believe that we are well on the way towards proving that many hundreds of thousands of acres of practically worthless land hitherto

* Report of Estimates Committee with Evidence, 1937, No. 86 ; 143.

classified as unplantable can be successfully afforested at low costs.

If these 2 to 3 million acres were afforested they would produce ultimately 125 to 175 million cubic feet per annum. The greater part of this timber would be softwood.

The total possible and ultimate annual production on a sustained yield basis would therefore be :

	Cubic feet.
From the existing woodlands ...	100 to 125 million
„ afforestation areas ...	125 to 175 „
Total ...	<u>225 to 300</u> „

The present home production of about 47 million cubic feet is obtained by depleting the capital growing stocks of the woods.

Those volumes would be standing timber, and to make a comparison with current consumption it is necessary to determine the equivalent of our imports as standing timber. The figures have been worked out for 1935.* The unmanufactured timber was equivalent to 779 million cubic feet standing, and the pulp of wood to 201 million cubic feet ; total, 980 million cubic feet standing. The home woods contributed 47 million cubic feet standing to the total consumption, which amounted, therefore, to the grand total of 1,027 million cubic feet.

It would appear, in round figures, that by a great and prolonged effort our home production might be worked up to between 30 per cent. and 40 per cent. of the current imports of unmanufactured timber, or to between 20 per cent. and 30 per cent. of the total consumption, including pulp of wood.

It is tempting to consider what production on that scale would mean to rural Britain, but the question takes me outside the limits of this paper.

Such annual production would mean that the growing

* "Supply, Consumption and Marketing of Timber in the United Kingdom" (Statement presented by the Forestry Commission to the Fourth British Empire Forestry Conference, 1935), p. 5.

stocks were sufficient to meet a three-year emergency without resorting to fellings on a devastating scale.

What is the nature of the effort required to cope with the problem? Obviously it means far more energetic action. As regards afforestation, reliance must be placed as hitherto on State action—that is to say, on the Forestry Commission. The present rate of planting is 24,000 acres a year. At that rate it would take well over 100 years to complete the programme, and before that time elapsed felling would have to begin in the areas first afforested. The annual rate of planting would therefore have to be worked up quickly to a minimum of 40,000 acres. There is no inherent difficulty provided the land can be obtained well in advance, and that is the obstacle on which a large scheme would be most likely to come to grief.

As regards the rehabilitation of 2 million acres of existing woodland, the problem is mainly that of private forestry. The Forestry Commissioners are gradually acquiring existing woodland, mostly areas on which there is little or no valuable timber, but the rate is too slow materially to affect the problem.

Attention has already been drawn to the reasons why so little is being done. Various methods have been suggested for improving woodlands at present in private ownership. Direct measures, such as higher planting grants, and indirect ones, such as better educational and advisory services, and closer co-operation in marketing timber are among them.

I do not wish to go into this question in detail on this occasion because the Forestry Commissioners are convening shortly a meeting of all the interests concerned to discuss it ; but I think I can usefully indicate the way the whole position presents itself to my mind.

First, there are owners who want to improve their woodlands and have the means to do so. With that group results can be obtained by better educational and advisory services.

Secondly, there are owners who want to improve their woods but have not the means. Broadly, the crux of the question here is supplying the necessary capital. It is very

doubtful whether any increase, within reasonable limits, of the existing planting grants would achieve good results. If State funds are to be provided, the corollary is joint ownership coupled with some measure of State control in management. There appears to be here a wide field which is worth exploration, because it is possible to work out schemes elastic in character and for that reason suitable to individual cases.

I feel that there must be many owners who dislike the present situation sufficiently to be prepared to co-operate with the State. The main desideratum would be that both parties got a fair deal.

And, thirdly, there are those owners who are, and will remain, indifferent, so that the only way to get results is by compulsion. Obviously I get here on to very difficult ground which is common to other industries, such as agriculture. There is no doubt, however, that public opinion tends to become less and less tolerant of waste of the natural forces of production, whether of food or of timber. It is equally clear too that the development of the modern State is towards more direct control of the use to which land is put.

I wish now to comment briefly on two questions which I have incidentally referred to above. There is no doubt that in the past timber production has been frequently subordinated to the interests of sport. The issue is not always clear-cut, and possibly in many cases sport is merely an excuse for not doing silvicultural work which the owner is not in a position to carry out. Mr. Orde-Powlett, President of the Royal English Forestry Society, has devoted attention to this subject,* and his conclusion is that so far from good forestry and sport being in direct conflict the former can in fact be made to help the latter.

On the subject of amenity the Forestry Commissioners come in for a great deal of criticism, mainly on the score

* "Towards a National Forest Policy—The Relation of Forestry to Sport," by the Hon. Nigel A. Orde-Powlett.—(*Country Life*, 19th June, 1937.)

of planting conifers instead of broad-leaved trees, but sometimes for planting anything at all. The criticisms overlook certain fundamental considerations. It is softwoods which we require in the ratio of 10 to 1 of hardwoods. Very little of the land available for afforestation is suitable for hardwoods, at least in the first rotation. If we require more hardwoods apart from existing woodlands it is necessary to take land suitable for arable cultivation, and there are obvious objections to that course.

Again, young plantations, whether softwoods or hardwoods, are not beautiful any more than a newly planned garden or a building in course of erection is beautiful. Time is required in every case, and a long time with trees.

Then there is the natural aversion to any change in a familiar scene. But change goes on unceasingly whether one likes it or not. It is quite impossible to retain any landscape in a static condition.

The conclusion which I draw on this subject of amenity is that there is no justification in attempting to resist changes which are desirable or necessary in the national interest, but that there is every justification in making changes in the best possible ways.

I wish to refer finally to the experiments which the Forestry Commissioners are making to combine recreational facilities, amenity and economic timber production in National Forest Parks. I believe that in many cases the three things could be made to work together, and that if they can there would be a desirable economy in the utilisation of the land of these small islands.